

AN EASTERN VARIETY OF CAREX FISSA
(§MULTIFLORAE)

F. J. HERMANN

In 1960, specimens of a puzzling sedge from Lake and Seminole counties, Florida, were received for review from Richard J. Eaton. Mr. Eaton commented that although repeated attempts to key out the plant in Mackenzie's monograph (North American Flora, Vol. 18, 1931-1935), as well as in Fernald's treatment in Gray's Manual, ed. 8, (1950), and Gleason's in the New Britton and Brown Illustrated Flora (1952), lead invariably to the widespread and polymorphous *Carex annectens* Bickn. (Section Multiflorae), it was not in the least suggestive of that species in the field. My own attempts at identification produced the same result and it was not until I had seen an additional specimen (*Ray, Wood, Smith & Eaton 10750*), collected the following year, that another possible affinity suggested itself, namely with the rare, or at any rate highly localized, *C. fissa* Mack. of eastern Oklahoma.

Further collections from Florida by R. J. Eaton, an extensive series obtained from several counties in the same state by R. K. Godfrey, and recent collections of *C. fissa* kindly made in the type locality by Professor U. T. Waterfall, were compared with the type specimen of *C. fissa*. The results indicated that in their fundamental characteristics the Florida plants agreed most closely with the presumed Oklahoma endemic. Pronounced differences were apparent, so that nomenclatorial recognition seemed imperative, but without exception the diagnostic characteristics were found to be inconstant, and so the eastern plant is here proposed as a geographic variety.

Carex fissa Mack. var. *aristata* F. J. Herm., var. nov., a varietate typica recedit ligula concava, vaginis ad apicem ventraliter saepe minus prolongatis, squamis foemineis longiaristatis, perigyniis ventraliter paucinervatis.

FLORIDA: SEMINOLE COUNTY: between roadside and moist margin of pine - Serenoa flatwood, 1 mile southeast of Oviedo, *Ray, Wood, Smith & Eaton 10750*, April 26, 1961 (GH-Type; NY; USFS; FSU; OKLA); near Slavia, *Cooley, Eaton & Ray 7459*, May 2, 1960 (GH; US; USFS; USF). LAKE COUNTY: near Howie-in-the-Hills, *Cooley & Eaton 7350*,

April 29, 1960 (GH; USFS; USF). WAKULLA COUNTY: Live Oak Island, *R. K. Godfrey 56799*, May 21, 1958 (GH; USFS; FSU); and *62727*, May 3, 1963 (GH; FS; NY; BM; SFU; US; V); vicinity of Shell Island near St. Marks, *R. K. Godfrey 62734*, May 3, 1963 (GH; FS; FSU; US). NASSAU COUNTY: clearing of swamp, vicinity of O'Neil, *R. K. Godfrey 64096*, May 23, 1964, (FSU; USFS). MARIAN COUNTY: wet ditch along Alexander Springs River, near Alexander Springs, *R. K. Godfrey & R. D. Houk 62795*, May 11, 1963, (SFU; USFS). TAYLOR COUNTY: low wet area near river, Econfina Landing, *S. McDaniel & R. K. Godfrey 4299*, May 3, 1964 (FSU; USFS). OKLAHOMA: CREEK COUNTY: ditch, valley just north of Kiefer, *M. T. Waterfall 17016*, June 1, 1962 (GH; OKLA; USFS) (approaching var. *fissa*).

The following key may serve to distinguish *Carex fissa* var. *aristata* from var. *fissa* and from *C. annectens*.

- Plant coarse in habit; culms thick (3-6 mm. wide at base); leaves wide (3-5 mm.); spikes congested into a short, broad head (2-4.5 cm. long, 8-15 mm. wide); perigynia large (3.25-3.9 mm. long), usually green at maturity, truncate to shallowly cordate at base. Ligule convex; sheaths conspicuously prolonged ventrally at the mouth; scales acuminate to cuspidate; perigynia ventrally nerveless or occasionally 1-2 nerved *C. fissa*.
- Ligule generally concave to V-shaped; sheaths generally less prolonged ventrally at the mouth; pistillate scales cuspidate to long-awned; perigynia usually with 1-4 ventral nerves *C. fissa* var. *aristata*.
- Plant slender; culms not thick (2.5-4 mm. wide at base); leaves relatively narrow (2-4 mm. wide); spikes arranged in an elongated, relatively narrow inflorescence (3-8 cm. long, 5-10(12) mm. wide); perigynia small (2.3-2.9 mm. long), usually nerveless ventrally, yellowish to brownish at maturity, tapered at base *C. annectens*.

During the course of a preliminary study of his Florida collections and before asking me to make the taxonomic decision and publish my findings, Mr. Eaton had enlisted the indispensable aid of Prof. Waterfall and Dr. Godfrey in securing the many collections of plants pertinent to the problem. Both Mr. Eaton and I are deeply grateful for their invaluable cooperation, without which it is unlikely that any plausible conclusion could have been reached.

FOREST SERVICE HERBARIUM,
RANGE AND WILDLIFE HABITAT RESEARCH,
U. S. DEPARTMENT OF AGRICULTURE,
WASHINGTON, D. C.